Commercial: Cascading gas boilers



CASE STUDY BP House, Wellington



BP House in Wellington.

Challenge

The gas boilers in BP House had come to the end of their useful working life and required replacement. BP wanted to have new boilers that could show a substantial saving on their running costs. The two original 450kW cast iron boilers were located on the top floor and had to be cut up to remove them from the boiler room and craned down from the building.

Solution

Central Heating New Zealand offered a solution of a state-of-the-art Baxi Boiler Cascade System using six Baxi Power HT 150kW condensing boilers connected together to produce 900kW of power. The boilers were easily carried up in the buildings elevators individually and positioned

Contractors and Client Command Services, BP Oil.

Products Used

6 x Baxi Power HT 150kW condensing gas boilers.

in the plant room. Because the heating system in the building was an open vented system but the condensing gas boilers are optimized with a pressurized situation, Central Heating New Zealand fitted a heat exchanger between the boiler cascade and the delivery system so that the heating system could remain open vented and the boiler cascade could be pressurized. This also prevented any contamination reaching the



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boiler heat exchangers. The contractors wanted a minimum of downtime for the heating system and the factory Baxi modular hydraulic manifolds made this transition easy.

Benefits

The boilers can meet the peak design load of the building but also perfectly match the varied part load demand that occurs in all buildings. By using multiple boilers, the building gets fail safe heating that is also easy to service for maintenance. There is a huge amount of space saved in the boiler room due to the much smaller size of the modern condensing boiler. Additionally, the client is saving approximately 20% on gas running costs and there is approximately an 80% reduction in CO2 emission from the flue terminals.



System Description

Six Baxi Power HT 150kW condensing boilers as part of a cascade system designed to produce 900kW of power for a pre-existing central heating system.

Central Heating

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